REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-20 are presently active, and Claim 1 is amended. No new matter is added.

In the outstanding Office Action, Claims 1, 2 and 7-15 were rejected under 35 U.S.C. 103(a) as unpatentable over Kim et al. (US 6,150,868, hereinafter referred to as "Kim '868") in view of Kim et al. (US 5,929,691, hereinafter referred to as "Kim '691") and Verwegen (US 6,147,546), Claims 3 and 16 were rejected under 35 U.S.C. 103(a) as unpatentable over Kim '868 in view of Kim '691 and Verwegen, and further in view of Saito et al. (US 6,320.800), Claims 4-6 and 17 were rejected under 35 U.S.C. 103(a) as unpatentable over Kim '868 in view of Kim '691, and Verwegen, and further in view of Saito et al. and Kang (US 6,134,177), Claim 18 was rejected under 35 U.S.C. 103(a) as unpatentable over Kim '868 in view of Kim '691 and Verwegen, and further in view of Potter et al. (US 6,308,230), Claim 19 was rejected under 35 U.S.C. 103(a) as unpatentable over Kim '868 in view of Kim '691, Verwegen and Saito et al., and further in view of Potter et al. (US 6,308,230), and Claim 20 was rejected under 35 U.S.C. 103(a) as unpatentable over Kim '868 in view of Kim '691 and Verwegen, Saito et al., Kang, and further in view of Potter et al. (US 6,308,230).

Regarding the rejection of Claims 1-20, Applicants respectfully submit that the rejection is overcome because, in Applicants' view, amended independent Claim 1 patentably distinguishes over Kim '868, Kim '691 and Verwegen as discussed below.

Claim 1 is amended to recite, *inter alia*, "a first transistor of a first conductivity type, in which ... a drain is connected to the one end of the fuse ... and a pulse signal for initialization is input to a gate," "a second transistor of the first conductivity type, in which ... a drain is connected to the one end of the fuse ...," "a third transistor of a second conductivity type disposed immediately below the fuse, in which ... the pulse signal is input to a gate" and

"wherein conductance of the first transistor is higher than that of the second transistor." By disposing the third transistor of the second conductivity type, which is opposite to the conductivity type of the first and second transistors, immediately below the fuse, the layout area of the fuse latch circuit can be reduced.[1]

Instead, Kim '868 in Fig. 1 shows an anti-fuse programming circuit including an anti-fuse 70, a p-type transistor P1 connected to one end of the anti-fuse 70 and an n-type transistor N1 connected to the other end of the anti-fuse 70. However, Kim '868 does not teach or suggest that the n-type transistor N1 is disposed immediately below the anti-fuse 70.

Kim '691 in Fig. 7shows a laser fuse 31 and an input circuit 32, which includes a p-type transistor 33 and an n-type transistor 34 connected to one end of the laser fuse 31. However, Kim '691 does not teach or suggest that the n-type transistor 34 is disposed immediately below the laser fuse 31.

Verwegen in Fig. 3 shows a fuse 2, a p-type transistor 6 connected to one end of the fuse 2, and an n-type transistor 7 connected to the other end of the fuse 2. However, Verwegen does not teach or suggest that the n-type transistor 7 is disposed immediately below the fuse 2.

Thus, Kim '868, Kim '691 and Verwegen fail to teach or suggest "a third transistor of a second conductivity type ***disposed immediately below the fuse***, in which ... the pulse signal is input to a gate," as recited in Claim 1.

Further, the outstanding Office Action acknowledges that Kim '868 does not teach that the same pulse signal is input to the gate of the first transistor and the gate of the third transistor (Office Action at page 3, lines 3-6). Instead, the outstanding Office Action relies on Kim '691 to remedy the deficiencies of Kim '868, stating Kim '691 teaches an anti-fuse

[1] See, for example, the specification at page 17, lines 1-6.

programming circuit wherein the gates of a first and a third transistor are coupled to the same pulse signal (Office Action at page 3, lines 7-8).

However, in Kim '691, although the n-type transistor 34 is connected to the laser fuse 31, the p-type transistor 33 is not connected to the laser fuse 31. That is, the p-type transistor 33 does not correspond to "a third transistor" as recited in Claim 1. Therefore, Kim '691 does not teach or suggest that the same pulse signal is input to the gate of the first transistor and the gate of the third transistor, as recited in Claim 1.

Thus, even the combination of Kim '868 and Kim '691 fail to teach or suggest "a first transistor of a first conductivity type, in which ... a drain is connected to the one end of the fuse ... and ***a pulse signal for initialization is input to a gate***" and "a third transistor of a second conductivity type disposed immediately below the fuse, in which ... ***the pulse signal is input to a gate***," as recited in Claim 1.

Further, the outstanding Office Action acknowledges that Kim '868 does not teach that the conductance of the first transistor is higher than that of the second transistor (Office Action at page 3, lines 3-6). Instead, the outstanding Office Action relies on Verwegen to remedy the deficiencies of Kim '868, indicating that Verwegen teaches that the conductance of the PFET 6 is higher than that of the NFET 7 (Office Action at page 3, line 18 through page 4, line 2).

However, in Verwegen, the PFET 6 and the NFET 7 are connected to the opposite ends of the fuse 2, respectively. Instead, the first and second transistors recited in Claim 1 are connected to the same end of the fuse. Further, the PFET 6 and the NFET 7 in Verwegen have the opposite conductivity types. Instead, Claim 1 is now amended to recite that the first transistor and the second transistor have the same conductivity type (i.e., a first conductivity type). Thus, the PFET 6 and the NFET 7 do not correspond to "a first transistor" and "a second transistor" as recited in Claim 1. Therefore, Verwegen does not teach or suggest that

the conductance of the first transistor is higher than that of the second transistor, as recited in Claim 1.

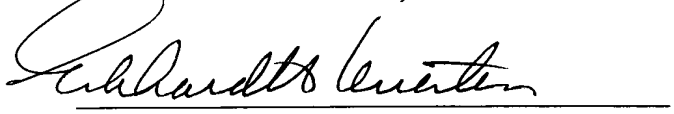
Thus, even the combination of Kim '868 and Verwegen fail to teach or suggest "a first transistor of ***a first conductivity type***, in which ... ***a drain is connected to the one end of the fuse*** ... and a pulse signal for initialization is input to a gate," "a second transistor of ***the first conductivity type***, in which ... ***a drain is connected to the one end of the fuse*** ..." and "wherein ***conductance of the first transistor is higher than that of the second transistor***," as recited in Claim 1.

Accordingly, independent Claim 1 patentably distinguishes over Kim '868, Kim '691 and Verwegen. Therefore, Claim 1 and the pending Claims 2-20 dependent from Claim 1 are believed to be allowable.

Consequently, in view of the present amendment and in light of the above discussions, it is believed that the outstanding rejection is overcome, and the application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

EHK/TY:pta
I:\ATTY\TY\AMEND-RESPONSES\248965\248965 AM WITH RCE APRIL 5 2007.DOC